

I. Global developments in military expenditure, 2019

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World military expenditure in 2019 is estimated to have been more than US\$1.9 trillion, the highest level since SIPRI started estimating total world military expenditure.¹ It was 3.6 per cent higher in real terms than in 2018 and 7.2 per cent higher than in 2010 (see table 8.1 and figure 8.1).² World military spending rose in each of the five years from 2015, having decreased almost steadily from 2011 until 2014 following the global financial and economic crisis. The world military burden—global military expenditure as a share of global gross domestic product (GDP)—was 2.2 per cent in 2019, after a minor increase from 2018.³ Military spending per capita increased from \$243 in 2018 to \$249 in 2019 as the growth in military spending surpassed world population growth (1.1 per cent).

In at least four of the world's five regions, military expenditure increased in 2019 (see figure 8.1 and section II). The rate of increase was highest in Europe, at 5.0 per cent, taking the regional total to \$356 billion. This was followed by an increase of 4.8 per cent in Asia and Oceania to \$523 billion, a 4.7 per cent rise in the Americas to \$815 billion, and growth of 1.5 per cent in Africa to \$41.2 billion. The countries with the highest absolute increase in each of these regions were Germany in Europe, China in Asia and Oceania, the United States in the Americas, and Algeria in Africa.

For the fifth successive year, SIPRI cannot provide an estimate of total spending in the Middle East.⁴ Missing data from two large spenders in the region (Qatar and the United Arab Emirates) and from two countries affected by conflict (Syria and Yemen) mean that no reliable estimate can be provided for this region. Of the 11 countries in the Middle East for which data is available, the combined military expenditure fell by 7.5 per cent to

¹ Of the 169 countries for which SIPRI attempted to estimate military expenditure in 2019, relevant data was found for 150. See the notes in table 8.1 for more details on estimates in world and regional totals.

² All figures for spending in 2019 are quoted in current 2019 US dollars. Except where otherwise stated, figures for increases or decreases in military spending are expressed in constant 2018 US dollars, often described as changes in 'real terms' or adjusted for inflation.

All SIPRI's military expenditure data is freely available in the SIPRI Military Expenditure Database. The sources and methods used to produce the data discussed here are also presented on the SIPRI website.

³ The world military burden increased slightly (by 1.3%) in 2019, but this change is concealed by the conventions of rounding. See table 8.1. GDP estimates are from International Monetary Fund (IMF), International Financial Statistics Database, Sep. 2019.

⁴ The estimate of total world military expenditure includes a rough estimate of total spending in the Middle East.

Table 8.1. Military expenditure and the military burden by region, 2010–19

Figures for 2010–19 are in US\$ b. at constant (2018) prices and exchange rates. Figures for 2019 in the right-most column, marked *, are in current US\$ b.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2019*
World total	1 793	1 799	1 783	1 756	1 750	1 776	1 785	1 807	1 855	1 922	1 917
<i>Geographical regions</i>											
Africa											(41.2)
North Africa	(35.5)	(39.2)	40.4	45.1	46.4	(44.3)	(43.3)	(42.5)	(41.0)	(41.6)	(41.2)
Sub-Saharan Africa	(14.0)	(17.3)	18.9	22.2	22.9	(23.3)	(23.4)	(22.9)	(22.3)	(23.4)	(23.5)
Americas	(21.5)	(21.8)	(21.5)	22.9	23.4	20.9	19.9	19.6	18.6	18.2	17.7
Central America and the Caribbean	924	914	868	808	764	750	747	746	768	805	815
North America	5.7	6.1	6.5	6.9	7.2	7.0	7.7	7.2	7.9	8.5	8.7
South America	867	858	810	748	703	690	688	685	705	741	754
Asia and Oceania	50.8	50.1	51.3	53.4	54.0	53.4	51.0	53.9	55.2	55.3	52.8
Central Asia	352	366	381	400	423	446	467	489	507	531	523
East Asia	1.3	1.4	1.6	1.8	1.9	1.9	1.7	1.6	1.8	2.1	2.2
Oceania	234	246	260	276	294	310	323	337	354	370	363
South Asia	24.5	24.1	23.3	23.1	25.0	27.3	29.8	29.9	29.5	30.6	29.0
South East Asia	63.1	64.1	64.3	64.2	67.8	69.0	74.9	80.7	83.8	89.1	88.1
Europe	29.7	30.4	31.3	34.4	34.1	37.2	37.9	39.6	38.0	39.6	40.5
Central Europe	336	330	331	326	328	337	351	342	348	365	356
Eastern Europe	20.2	19.7	19.3	19.1	20.4	23.1	23.4	25.2	28.5	32.6	31.5
Western Europe	53.6	57.6	66.4	69.5	74.8	80.9	85.5	70.2	68.9	72.3	74.0
Middle East	262	252	246	238	233	233	243	247	251	261	251
<i>World military spending per capita (current US\$)</i>	146	149	161	176	188	..	..	..	..	..	..
	237	248	245	242	239	226	239	240	243	249	..

Military burden (i.e. world military spending as a % of world gross domestic product, both measured in current US\$)^a

World	2.5	2.4	2.3	2.3	2.2	2.4	2.4	2.3	2.2	2.2
Africa	1.7	1.7	1.8	2.0	2.2	1.9	1.9	1.8	1.6	1.6
Americas	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4
Asia and Oceania	1.7	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.6	1.7
Europe	1.6	1.5	1.5	1.5	1.5	1.6	1.5	1.5	1.6	1.7
Middle East	4.3	4.3	4.6	4.7	4.8	5.4	5.2	5.0	4.7	4.5

() = total based on country data accounting for less than 90% of the regional total; .. = estimate not provided due to unusually high levels of uncertainty and missing data.

Notes: The totals for the world and regions are estimates, based on data from the SIPRI Military Expenditure Database. When military expenditure data for a country is missing for a few years, estimates are made, most often on the assumption that the rate of change in that country's military expenditure is the same as that for the region to which it belongs. When no estimates can be made, countries are excluded from the totals. The countries excluded from all totals here are Cuba, Djibouti, Eritrea, Myanmar, North Korea, Somalia, Syria, Turkmenistan and Uzbekistan. Totals for regions cover the same groups of countries for all years. The SIPRI military expenditure figures are presented on a calendar-year basis, calculated on the assumption of an even rate of expenditure throughout the financial year. Rough estimates for the Middle East are included in the world totals for 2015–19. Further detail on sources and methods can be found on the SIPRI website.

^a The military burden of a region is the average military burden for countries in the region for which data is available.

Sources: SIPRI Military Expenditure Database, Apr. 2020; International Monetary Fund, World Economic Outlook Database, Oct. 2019; International Monetary Fund, International Financial Statistics Database, Sep. 2019; and United Nations Department of Economic and Social Affairs, Population Division, 'World population prospects 2019', Aug. 2019.

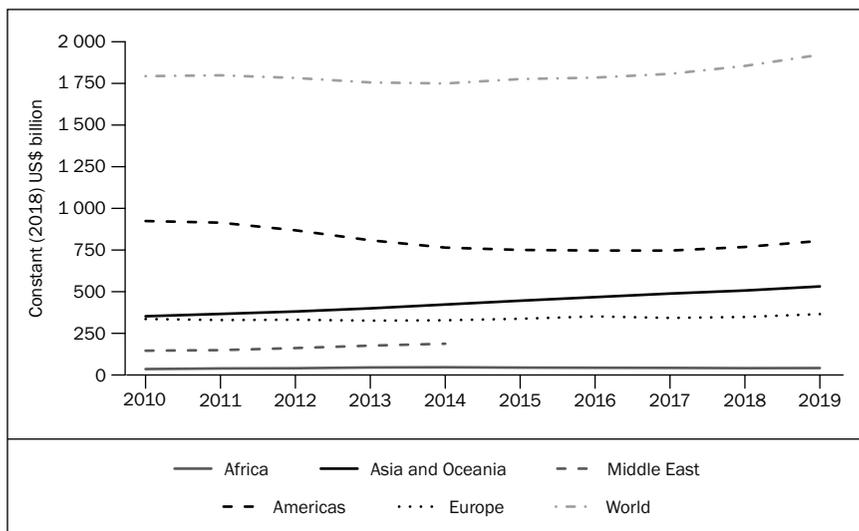


Figure 8.1. Military expenditure by region, 2010–19

Note: No estimate of military expenditure in the Middle East for 2015–19 is given since the data is highly uncertain. However, a rough estimate for the Middle East is included in the estimated world total.

Source: SIPRI Military Expenditure Database, Apr. 2020.

\$147 billion in 2019. This overall fall was caused by decreases in spending in 7 of these 11 countries, most notably Saudi Arabia.

The rise in world military spending in 2019 can be illustrated by comparing the scale of the largest absolute increases with that of the largest absolute decreases. In 2018 constant US dollars, the five largest increases in military spending were \$36.2 billion by the USA, \$13.0 billion by China, \$4.7 billion by Germany, \$4.5 billion by India and \$3.2 billion by the Republic of Korea (South Korea). In contrast, the largest decreases were substantially smaller: the largest decrease was \$11.9 billion by Saudi Arabia, followed by \$1.6 billion by Iran, \$889 million by Oman, \$451 million by Canada and \$330 million by Lebanon.

This section continues by describing global trends in military expenditure over the period 2010–19. It then identifies the 15 states with the highest military spending in 2019, with a focus on the top 2: the USA and China. Regional trends are described in section II.

Trends in military expenditure, 2010–19

The 3.6 per cent increase in total global military spending in 2019 was the largest annual increase of the period 2010–19, surpassing the 2.6 per cent increase in 2018. Military spending over the 2010s rose by 7.2 per cent, but

with the trend varying across three periods: a small increase between 2010 and 2011, decreases in 2012–14 and continuous increases in 2015–19 (see table 8.1).

The USA and China—which together spend almost \$1 trillion—account for over half of the world’s military spending and so any change in their spending will have a substantial influence on the trend in the global total. India, Russia and Saudi Arabia have also contributed—albeit to a lesser extent—to changes in the world total. For example, the withdrawal of US troops from Iraq in 2010 and Afghanistan in 2011 led to substantial decreases in US military spending, which greatly affected global military spending. The fall in world spending between 2011 and 2014 was roughly a quarter of the drop in US spending. The decrease in world spending would have been far larger if the US fall had not been counteracted by major increases in Chinese, Russian and Saudi Arabian military spending. By 2015 the USA had withdrawn most of its troops from Afghanistan and the steep falls in US spending ended.⁵ As a result, US military spending decreased at a slower rate than before, falling by an annual average of 1.2 per cent between 2015 and 2017 compared with the average annual decrease of 5.1 per cent in 2011–14. It was also during 2015–17 that global military spending increased for the first time since 2011, albeit at a slow rate. However, this time the minor rise was due to increases in military spending by China and India. While Saudi Arabia’s military spending fell by 13 per cent between 2017 and 2019, this decrease was counteracted by spending increases by the USA, China, India and Russia. As a result, global military spending rose by 2.6 per cent in 2018 and by 3.6 per cent in 2019, the highest annual increases since 2009.

Over the decade 2010–19 regional total military spending decreased in only the Americas (–13 per cent), while it increased in Africa (17 per cent), Asia and Oceania (51 per cent), Europe (8.8 per cent) and for countries in the Middle East (21 per cent) for which data is available (see table 8.2). Among the 13 subregions, spending fell over the decade in only 3: sub-Saharan Africa (–15 per cent), North America (–15 per cent) and Western Europe (–0.6 per cent). In all other subregions, military spending grew. The five largest increases were in North Africa (67 per cent), Central Asia (63 per cent), Central Europe (61 per cent), East Asia (58 per cent), and Central America and the Caribbean (49 per cent).

The decline in military spending in sub-Saharan Africa from 2010 was the result of spending decreases by three of the four countries with the largest military expenditure in the subregion: Angola, Nigeria and Sudan. In North America (i.e. Canada and the USA), the decrease was solely because of changes by the USA. Following the USA-initiated ‘global war on terrorism’ in

⁵ Chandrasekaran, R., ‘The Afghan surge is over’, *Foreign Policy*, 25 Sep. 2012; and Landler, M., ‘US troops to leave Afghanistan by end of 2016’, *New York Times*, 28 May 2014.

Table 8.2. Key military expenditure statistics by region and subregion, 2019

Expenditure figures are in US\$, at current prices and exchange rates. Changes are in real terms, based on constant (2018) US\$.

Region/ subregion	Military expenditure, 2019 (US\$ b.)	Change (%)		Major changes, 2018–19 (%) ^a		
		2018–19	2010–19	Increases		Decreases
World	1 917	3.6	7.2			
<i>Africa</i> ^b	(41.2)	1.5	17	Togo	70	Zimbabwe -50
North Africa	(23.5)	4.6	67	Uganda	52	Mozambique -22
Sub-Saharan Africa ^b	17.7	-2.2	-15	Burkina Faso	22	Benin -20
				DRC	16	Niger -20
<i>Americas</i> ^c	815	4.7	-13	Guatemala	24	Argentina -9.2
Central America and Caribbean ^c	8.7	8.1	49	Jamaica	20	Bolivia -5.0
North America	754	5.1	-15	Mexico	7.9	Uruguay -4.0
South America	52.8	0.2	8.9	Paraguay	7.7	Ecuador -3.6
<i>Asia and Oceania</i> ^d	523	4.8	51	Afghanistan	20	Kyrgyzstan -2.4
Central Asia ^e	2.2	16	63	New Zealand	19	Indonesia -2.3
East Asia ^f	363	4.6	58	Kazakhstan	19	Nepal -2.2
Oceania	29.0	3.5	25	Brunei	17	Japan -0.1
South Asia	88.1	6.4	41	Darussalam		
South East Asia ^g	40.5	4.2	34			
<i>Europe</i>	356	5.0	8.8	Bulgaria	127	Cyprus -5.6
Central Europe	31.5	14	61	Slovakia	48	Austria -0.8
Eastern Europe	74.0	4.9	35	Serbia	43	Greece -0.4
Western Europe	251	3.9	-0.6	N. Macedonia	30	
<i>Middle East</i> ^h	..	..	..	Iraq	21	Saudi Arabia -16
				Turkey	5.8	Iran -15
				Kuwait	4.7	Lebanon -12

() = uncertain estimate; .. = not available; DRC = Democratic Republic of the Congo.

^a These lists show the countries with the largest increases or decreases for each region as a whole, rather than by subregion. Countries with a military expenditure in 2019 of less than \$100 million, or \$50 million in Africa, are excluded.

^b Figures exclude Djibouti, Eritrea and Somalia.

^c Figures exclude Cuba.

^d Figures exclude North Korea, Myanmar, Turkmenistan and Uzbekistan.

^e Figures exclude Turkmenistan and Uzbekistan.

^f Figures exclude North Korea.

^g Figures exclude Myanmar.

^h No SIPRI estimates for the Middle East are available for 2015–19. A rough estimate for the Middle East (excluding Syria) is included in the world total.

Source: SIPRI Military Expenditure Database, Apr. 2020.

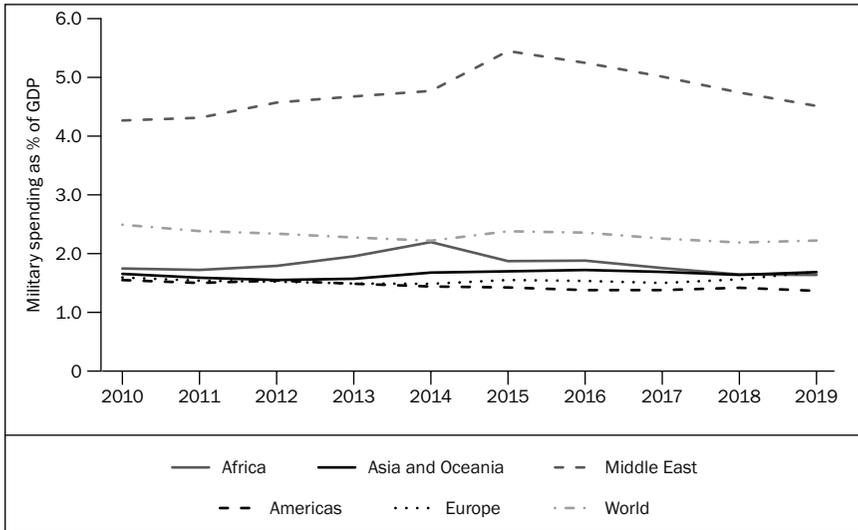


Figure 8.2. Military burden, by region, 2010–19

Note: The military burden is military expenditure as a share of gross domestic product (GDP). The military burden of a region is the average military burden of the countries in the region for which data is available.

Source: SIPRI Military Expenditure Database, Apr. 2020.

2001, US military spending peaked in 2010, then fell, with seven consecutive years of decrease in 2011–17.

In contrast, the growth in North Africa was the result of higher spending by all countries for which data is available. In Central Asia the increase can be attributed to higher spending by Kazakhstan, the subregion's largest spender. The increase in Central Europe was driven by states' perceptions of a growing threat from Russia and the need to modernize and replace old military equipment (see section III).⁶ The growth in East Asia was largely due to continued increases in Chinese military spending, albeit with a lower annual increase in 2019 than in 2010. In Central America and the Caribbean the rise was principally the result of Mexico's ongoing drug war (see section II).

At 2.2 per cent, the world military burden in 2019 was 0.3 percentage points lower than in 2010 (see table 8.1 and figure 8.2). The world military burden followed a declining trend in 2010–19, decreasing every year except for 2015 and 2019, despite the 7.2 per cent increase in military spending. The increase in military burden in 2015 was the result of a fall in world GDP, the first since 2009, while in 2019 the 3.6 per cent increase in world military spending was roughly 1.6 percentage points more than the growth in world GDP.

⁶ On the modernization and replacement of major arms see also chapter 9, section II, in this volume.

Table 8.3. The 15 countries with the highest military expenditure in 2019

Expenditure figures and GDP are in US\$, at current prices and exchange rates. Changes are in real terms, based on constant (2018) US\$.

Rank		Country	Military expenditure, 2019 (\$ b.)	Change (%)		Military expenditure as a share of GDP (%) ^b		Share of world military expenditure, 2019 (%)
2019	2018 ^a			2018–19	2010–19	2019	2010	
1	1	USA	732	5.3	-15	3.4	4.9	38
2	2	China	[261]	5.1	85	[1.9]	[1.9]	[14]
3	4	India	71.1	6.8	37	2.4	2.7	3.7
4	5	Russia	65.1	4.5	30	3.9	3.6	3.4
5	3	Saudi Arabia	[61.9]	-16	14	[8.0]	8.6	[3.2]
Subtotal top 5			1 191	..	..	..	..	62
6	6	France	50.1	1.6	3.5	1.9	2.0	2.6
7	9	Germany	49.3	10	15	1.3	1.3	2.6
8	7	UK ^c	48.7	0.0	-15	1.7	2.4	2.5
9	8	Japan	47.6	-0.1	2.0	0.9	1.0	2.5
10	10	South Korea	43.9	7.5	36	2.7	2.5	2.3
Subtotal top 10			1 430	..	..	..	..	75
11	11	Brazil	26.9	-0.5	6.1	1.5	1.5	1.4
12	12	Italy	26.8	0.8	-11	1.4	1.5	1.4
13	13	Australia	25.9	2.1	23	1.9	1.9	1.3
14	14	Canada	22.2	-2.0	27	1.3	1.2	1.2
15	15	Israel	20.5	1.7	30	5.3	5.9	1.1
Subtotal top 15			1 553	..	..	..	..	81
World			1 917	3.6	7.2	2.2	2.5	100

[] = estimated figure; GDP = gross domestic product.

^a Rankings for 2018 are based on updated military expenditure figures for 2018 in the current edition of the SIPRI Military Expenditure Database. They may therefore differ from the rankings for 2018 given in *SIPRI Yearbook 2019* and in other SIPRI publications in 2019.

^b These figures are based on GDP estimates from International Monetary Fund, World Economic Outlook Database, Oct. 2019; and International Monetary Fund, International Financial Statistics Database, Sep. 2019.

^c Spending in the UK increased by 0.047% in 2019, but due to conventions of rounding the increase appears in the table as 0.0.

Source: SIPRI Military Expenditure Database, Apr. 2020.

There is substantial variation in the average military burden of each region. The average military burdens for countries in Africa and for countries in the Americas decreased, while in European and Middle Eastern countries they increased and in Asia and Oceania it remained unchanged. In 2019, on average, states in the Americas had the lowest military burden, at 1.4 per cent of GDP. For African states the average was slightly higher, at 1.6 per cent, and in both Asia and Oceania and Europe it was 1.7 per cent. The highest average, 4.5 per cent, was for the states in the Middle East for which data is available.

The largest military spenders in 2019

The top 15 military spenders in the world in 2019 were the same as in 2018, but there were some significant changes in the rankings among the highest spenders (see table 8.3).⁷ Most notably, India ranked as the third-largest spender in 2019 for the first time.

Military spending by the top 15 countries was \$1553 billion in 2019, accounting for 81 per cent of global expenditure. The USA (38 per cent) and China (14 per cent) remained the two largest spenders, together accounting for more than half of world spending. The gap between the military spending of China and that of the USA increased in 2019 for the first time since 2003 because the USA increased spending by almost three times more than China.

A moderate increase in India's military spending (6.8 per cent) together with a significant fall in Saudi Arabia's spending (-16 per cent) meant that India ranked third in 2019 for the first time. Saudi Arabia's decrease and the increase in Russia's spending (4.5 per cent) meant that Russia moved up one place in the rankings, from fifth to fourth, while Saudi Arabia fell from third to fifth position.

France increased its spending only slightly in 2019 but remained the biggest spender in Western Europe. The 10 per cent increase in Germany's spending was the highest increase of any top 15 spender in 2019. It meant that Germany moved up two places in the rankings, from ninth to seventh, while Japan and the United Kingdom each moved down one place.

The top 15 countries can be divided into four groups according to the scale of their military expenditure. The USA and China are the largest spenders—together they spent almost 1.8 times more than the other 13 countries combined. Next are three countries—India, Russia and Saudi Arabia—that spent approximately \$60–75 billion on their militaries in 2019. The third group consists of France, Germany, the UK, Japan and South Korea, with spending in the range \$40–55 billion in 2019. The fourth group includes five countries—Brazil, Italy, Australia, Canada and Israel—that each spent \$20–30 billion.

All but three countries in the top 15 had higher military expenditure in 2019 than in 2010. The exceptions were the USA (-15 per cent), the UK (-15 per cent) and Italy (-11 per cent). China's increase (85 per cent) was by far the largest among the top 15. There were more moderate increases (i.e. 10–39 per cent) in the spending of Australia, Canada, Germany, India, Israel, Russia, Saudi Arabia and South Korea, and minor increases (i.e. less than 10 per cent) by Brazil, France and Japan.

Among the top 15 military spenders in 2019, Japan had the lowest military burden: it devoted only 0.9 per cent of its GDP to military expenditure. Saudi

⁷ The United Arab Emirates (UAE) would probably rank as one of the 15 largest spenders, most likely in the range 11–15, but a lack of data since 2014 means that no reasonable estimate of its military spending can be made and thus it has been omitted from the top 15 ranking.

Table 8.4. Components of US military expenditure, financial years 2015–19

Figures are in US\$ b. at current prices unless otherwise stated. Years are US financial years, which start on 1 Oct. of the previous year.

	2015	2016	2017	2018	2019 ^a
Department of Defense	562	566	569	604	652
Military personnel	145	148	145	146	157
O&M	247	243	245	257	276
Procurement	101	103	104	113	123
RDT&E	64.1	64.9	68.1	80.0	85.3
Other DOD military	4.6	6.8	6.8	8.6	11.2
Department of Energy	27.2	28.0	29.8	30.4	32.4
Atomic energy, 'defence'	18.7	19.4	20.5	20.9	23.6
Other, 'defence' related	8.5	8.6	9.3	9.5	8.8
National Intelligence Program, military related	[37.7]	[39.8]	[41.0]	[44.6]	[45.2]
Department of State, international security assistance	6.4	6.7	7.1	6.8	5.7
Transfers to fund border wall construction	..	..	..	..	-3.6
Total	634	640	647	686	732
As a share (%) of GDP	3.5	3.4	3.3	3.3	3.4

[] = estimated figure; DOD = US Department of Defense; GDP = gross domestic product; O&M = operations and maintenance; RDT&E = research, development, test and evaluation.

^a Figures for financial year 2019 are estimates.

Source: US Department of Defense (DOD), Office of the Undersecretary of Defense (Comptroller), *National Defense Budget Estimates for FY2019* (DOD: Washington, DC, Apr. 2018).

Arabia had the highest, 8.0 per cent. Among the top 15, the military burdens of Israel (5.3 per cent), Russia (3.9 per cent), the USA (3.4 per cent), South Korea (2.7 per cent) and India (2.4 per cent) were also higher than the global military burden of 2.2 per cent.

The United States

US military expenditure was \$732 billion in 2019, an increase of 5.3 per cent compared with 2018 (see table 8.4). This was the second year of growth in US military spending following seven years of continuous real-terms decline—between 2010 and 2017 spending fell by 22 per cent. The USA remained by far the largest spender in the world in 2019, spending 2.8 times more than the second-largest military spender, China.

During his 2016 campaign for the US presidency, Donald J. Trump promised to rebuild what he considered a 'depleted' US military.⁸ Following his election, both President Trump and the US Congress championed a

⁸ Lewis, N., "Trump's claim that "they just kept cutting, cutting, cutting the military" until it was "depleted"', *Washington Post*, 5 Dec. 2017.

‘military rebuild’.⁹ The rebuilding of the US military was to have two central factors. The first was an increase in personnel costs, mainly attributed to the recruitment of 16 000 more military personnel.¹⁰ The second factor was arms-acquisition programmes involving both conventional and nuclear weapon modernization.¹¹ However, in 2019 President Trump diverted \$3.6 billion from the military budget to pay for the building of a wall along the border between the USA and Mexico.¹² The cumulative effect of all these changes was an 8.5 per cent increase in total US military expenditure between 2017 and 2019.

The increase in the US military budget to pay for the rebuild meant removing the automatic mechanism—known as the sequester—that reduces levels of expenditure under previously agreed budget caps. The caps were established by the 2011 Budgetary Control Act (BCA), which was designed to reduce the US Government’s large financial deficit.¹³ However, sequestration was last implemented in the early 2010s: the spending caps imposed by the BCA were commonly circumvented by adding more funding to the overseas contingency operations (OCO) category as the BCA did not limit OCO funding. In 2019 OCO spending was \$69 billion, accounting for almost 10 per cent of total US military spending.

In July 2019 the Congress approved raising the existing BCA spending caps, following which there was a move to change how US spending will be allocated in the future.¹⁴ Starting in 2020, an average of \$45 billion per year that previously fell under the OCO budget will be moved to base budget of the US Department of Defense (DOD).¹⁵

SIPRI’s estimate of US military spending is comprised of expenditure from four areas of government (see table 8.4): the DOD, the Department of Energy, the Department of State and the National Intelligence Program (NIP). DOD expenditure covers military personnel, operations and maintenance, procurement, and research and development (R&D). In 2019 it accounted for 89 per cent of total US military spending. Spending from the Department of Energy includes nuclear weapon activities and some other military-related

⁹ Bratels, F., ‘Trump and Congress just gave the military a big boost’, Heritage Foundation Commentary, 28 Sep. 2018.

¹⁰ McGarry, B. W., ‘The FY2019 defense budget request: An overview’, In Focus, US Congress, Congressional Research Service, 9 May 2018.

¹¹ On the nuclear weapon modernization programme see chapter 10, section I, in this volume.

¹² Grisales, C., ‘These are the military projects losing funding to Trump’s border wall’, All Things Considered, National Public Radio, 4 Sep. 2019.

¹³ Sköns, E. and Perlo-Freeman, S., ‘The United States’ military spending and the 2011 budget crisis’, *SIPRI Yearbook 2012*, pp. 162–66; and Heniff, B., Rybicki, E. and Mahan, S. M., *The Budget Control Act of 2011*, Congressional Research Service (CRS) Report for Congress R41965 (US Congress, CRS: Washington, DC, 19 Aug. 2011).

¹⁴ Gould, J., ‘Divided Senate passes 2-year budget deal with military boost’, *Defense News*, 1 Aug. 2019.

¹⁵ Woodward, F. M., *Funding for Overseas Contingency Operations and Its Impact on Defense Spending* (Congressional Budget Office: Washington, DC, Oct. 2018).

Box 8.1. Revised estimates for the military expenditure of the United States

The United States intelligence community is made up of two independent programmes, the Military Intelligence Program (MIP) and National Intelligence Program (NIP). Spending on the NIP is now included as a fourth category in the SIPRI estimate of US military spending.

MIP activities are conducted exclusively for the Department of Defense (DOD) and expenditure on the MIP is included in the DOD budget—thus, SIPRI has always included it as part of total US military spending. In contrast, the NIP provides both military and non-military services. Including NIP expenditure in total US military spending thus requires an estimate of the NIP's military-related activities and the corresponding expenditure. A newly acquired consistent time series of figures dating back to 1965 allows estimation of the proportion of total spending on the NIP that can be considered military related.^a

In general, the NIP is divided into eight DOD components and nine non-DOD components.^b The eight DOD components are the Defense Intelligence Agency (DIA), the National Geospatial-Intelligence Agency (NGA), the National Reconnaissance Office (NRO), the National Security Agency (NSA), US Air Force Intelligence, US Army Intelligence, US Marine Corps Intelligence and US Navy Intelligence. All of these are included in estimating the military-related activities of the NIP. Two of the nine non-DOD components of the NIP are also military related: the Office of the Director of National Intelligence (ODNI) and the Central Intelligence Agency (CIA). The other seven non-DOD components are part of the departments of Energy, Homeland Security, Justice, State and Treasury.

Total NIP spending in 2019 was an estimated \$60.2 billion.^c SIPRI estimates that 75 per cent of this total is military related. This adds \$45.2 billion (in current prices) to US military spending in 2019 (see table 8.4), making it 6.6 per cent higher than the total excluding intelligence spending.

^a Available information on intelligence spending has been obtained through the US Freedom of Information Act. This information has been published by both the Office of the Director of National Intelligence and other organizations, including the Federation of American Scientists (FAS). Federation of American Scientists, Intelligence Resource Program, 'Intelligence budget data'.

^b DeVine, M. E., *Intelligence Community Spending: Trends and Issues*, Congressional Research Service (CRS) Report for Congress R44381 (US Congress, CRS: Washington, DC, 6 Nov. 2019).

^c DeVine (note b).

activities, which together make up around 4 per cent of US military spending. Spending on international military aid by the Department of State accounts for about 1 per cent of the total. This includes peacekeeping operations, military aid, and international military education and training. The remaining 6 per cent is spending on the NIP, which can now be included in the SIPRI total estimate of US military spending (see box 8.1).

China

In 2019 China's military expenditure is estimated to have totalled \$261 billion, representing 14 per cent of global military spending. Spending in 2019 was 5.1 per cent higher than in 2018 and 85 per cent higher than in 2010 (see table 8.5). Indeed, military spending in China has now increased for 25 consecutive years, the longest streak of uninterrupted increase by any country

Table 8.5. Components of China's military expenditure, 2015–19

Figures are in yuan b. at current prices unless otherwise stated.

	2015	2016	2017	2018	2019 ^a
National defence budget (central and local)	909	977	1 044	1 128	1 213
People's Armed Police (central and local)	164	178	192	206	225
Payments to demobilized and retired soldiers	76.3	85.5	93.4	104	112
Additional military RDT&E spending	[122]	[132]	[139]	[153]	[174]
Additional military construction spending	[52.0]	[55.6]	[59.5]	[64.3]	[69.4]
Arms imports	[11.6]	[10.9]	[16.4]	[20.6]	[10.0]
Total (yuan b.)	1 335	1 438	1 545	1 676	1 803
Total (US\$ b.)	214	216	228	253	261

[] = estimated figure; RDT&E = research, development, test and evaluation.

Source: SIPRI Military Expenditure Database, Apr. 2020; and Chinese Ministry of Finance, Budget Division.

in the SIPRI Military Expenditure Database. Since the last decrease, in 1994, Chinese military spending has increased tenfold. The growth in China's military spending has closely matched the country's economic growth. Between 2010 and 2019, China's military burden remained almost unchanged, at 1.9 per cent of its GDP.

SIPRI's military expenditure figures for China differ from the official Chinese figures. SIPRI's estimate is almost 50 per cent higher than the figure that the Chinese Government publishes in its national defence budget: 1.2 trillion yuan (\$178 billion) in 2019.¹⁶ In estimating Chinese military expenditure, SIPRI seeks to account for significant elements of military-related spending that are outside the official budget for the Ministry of National Defense (see table 8.5).¹⁷

Official information is available for three categories of expenditure: the national defence budget, the budget of the People's Armed Police, and payments to demobilized and retired soldiers. These three items accounted for 86 per cent of total spending in 2019. The remaining 14 per cent of the total came from three further expenditure items that need to be estimated: additional funding for military research, development, testing and evaluation (RDT&E) outside the national defence budget (9.6 per cent of the total), additional military construction expenses (3.8 per cent), and arms imports (0.6 per cent).

In 2019 China released a new defence white paper, *China's National Defense in the New Era*, which offers insight into its long-term plan for mili-

¹⁶ Olsen, K., 'China's defense spending is growing more slowly. But that doesn't mean military tensions are easing', CNBC, 5 Mar. 2019.

¹⁷ SIPRI's estimate of China's military spending is based on a methodology adopted in 1999. Wang, S., 'The military expenditure of China, 1989–98', *SIPRI Yearbook 1999*, pp. 334–49. The original methodology included 8 expenditure categories, 2 of which (commercial earnings of the PLA and subsidies to the arms industry) are now redundant.

tary development and modernization.¹⁸ The three-step plan aims to achieve ‘mechanization’ and ‘enhanced informationization’ by 2020, complete the modernization of the military by 2035 and fully transform China’s armed forces—the People’s Liberation Army (PLA)—into a ‘world-class force’ by the middle of the century. It is ambitious and indicates that modernizing the PLA continues to be a priority.¹⁹ The white paper also states the need to narrow the gap between the PLA and ‘the world’s leading militaries’, which probably refers to the USA.²⁰ In addition, it outlines a ‘demand-oriented’ approach to planning and funding. Thus, unless there is a severe political or economic change, Chinese military spending can be expected to continue to increase in the coming years.

¹⁸ Chinese Ministry of National Defense (MND), *China’s National Defense in the New Era* (MND: Beijing, 24 July 2019).

¹⁹ Bitzinger, R. A., ‘Modernising the Chinese military in an age of information’, *East Asia Forum*, 10 Sep. 2019.

²⁰ Chinese Ministry of National Defense (note 18), chapter V.